

SPORTS

PRIME MINISTER CONGRATULATES CHAMPION

Indian Prime Minister Indira Gandhi recently welcomed on her residence the participants of a Delhi International chess tournament and warmly congratulated the winner, world champion Maya Chiburdanidze of the USSR.

The Prime Minister spoke highly of the development of relations between the USSR and India, specifically in sports. She stressed that meetings with Soviet Grandmasters and tournaments like the one just ended provided Indian chess players with very valuable experience, enabling a renaissance of the ancient game in India and its popularization. She conveyed her greetings and good wishes

to Soviet chess players and all Soviet people.

Indian sports writers admire Maya Chiburdanidze's showing at the tournament, which attracted considerable interest among all chess lovers in the country. The world champion played excellently, coming out ahead of 11 male Grandmasters and International Masters.

The tournament winners and participants were presented with awards at a ceremony in the house of Soviet Science, Culture and Arts where the tournament was held for the second time at the initiative of the local M. Botvinnik chess club.

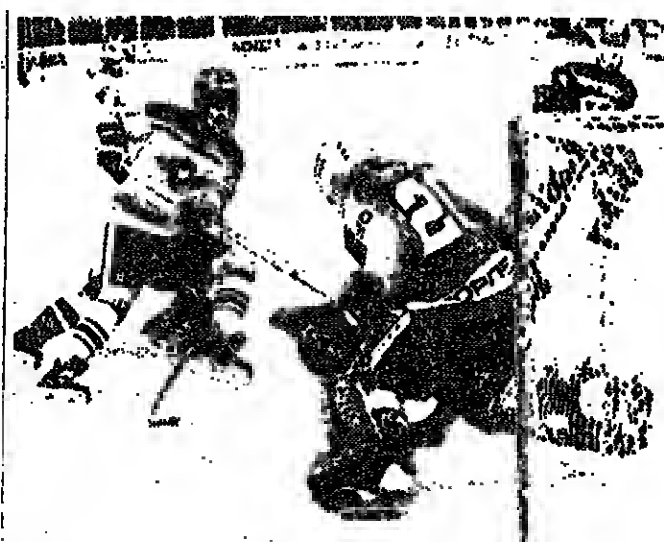
Ice hockey on the final straight

After the 1981 Olympics ice-hockey specialists and fans set their sights on the championships of the countries favoured to win the third Canada Cup this September. The closing games of the ice-hockey season will name candidates for Canada Cup participation.

In the USSR championship the national leaders are the Central Army Club, which formed the mainstay of the side which won the 1984 Olympic title. Incidentally, the USSR won the second Canada Cup. The Cen-

tral Army Club continue undefeated with 52 points from 26 games. Moscow Spartak have 39 points after 27 games, and Kiev Sokol and Vsesenenskiy Khimik are level at 35 points from 26 games to share 3rd-4th position.

In Czechoslovakia the top division clubs have played 27 games each, with leaders Dukla Jihlava missing 40 points and followed by Jihlava Dukla and the Litvov team, who are level with 38 points each.



Moscow Spartak beat visitors Gorky Turpedo 6-2 in a recent national top division ice-hockey championship game.

SPEEDING TO NEW RECORD

Franz Weber of Austria has set a new world skiing speed record, dashing downhill at 203.155 kph at a competition in the Canadian Rocky Mountains. The 76 skiers who set out from as high as 4,333 metres down the northern slope of the storm peak sought to set a record but only 12 of them reached the check point at the end of the course.

They start making copies

FIFA has met the request of the Brazilian Football Confederation to have a copy made of the "Golden Glove" cup won by Brazil and stolen from the Confederation premises. The commission was ordered to a West German jeweller apocryphal in copies of stolen sports trophies he has already been commissioned to make copies of the "Golden Glove", the "Independence Cup" and the "Justice Cup" which were also stolen in Brazil and Mexico.

The US firm of Kodak has undertaken to meet the expenses involved in making cups for both Brazil and Mexico thus winning the right to advertise its products at all major international events involving Latin American athletes.

Biathlon

Venera Chernyashova of the USSR has opened the first women's biathlon world championships by winning a 10 km biathlon with three shooting at Chamouilly, France in 44 min 21.07 sec.

The first official world women's championship in the history of biathlon drew 35 athletes from 12 countries. The USSR made a clean sweep of its awards as Lyudmila Zabolotnaya and Tatyana Brylina came second and third and K. R. R. finished fourth.

Yuri Koshelev of the USSR, Sarajev Olympic biathlon winner, has won the first world cup stage, a 20 km race at Oberhof, GDR, in 1 hr 05 min 29.5 sec.

Bribe to the losers

A scandal broke out in Belgian football following a lengthy investigation which revealed that the owners of Standard, one of the leading Belgian professional clubs, paid a large bribe to their rival in the final national championship match of the 1981-82 season. The bribe was meant to ensure Standard's Belgian champion status. The rival team, Waterschei, making room for Standard's triumph champion after it gave one point over Anderlecht.

This evidence was given to the police by E. Goret, the captain of the Belgian national team who for a long time was Standard's captain. The police questioned him several times in connection with the football clubs' use of money from the so-called "black cash fund" which the bosses of the professional clubs conceal in order to avoid paying taxes.



Karl Trenhardt of West Germany has set a new world indoor high-jumping record at 237 cm at an athletes event in West Berlin, a one centimetre improvement on the former best of V. Paklo of the USSR.



EDITORIAL BOARD

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USSR Supreme Soviet elections

On Sunday, March 4, 1984, from 6 a.m. to 10 p.m. local time, the Soviet people voted in the elections to the Supreme Soviet of the Union of Soviet Socialist Republics of the 11th convocation.

On that day at a meeting of the Central Electoral Commission for Elections to the USSR Supreme Soviet, which took place at Moscow's House of Union, the progress of elections nationwide was reviewed.

The election returns which came in by noon indicated a voter turnout of 89.42 per cent and by 6 p.m. this had risen to 99.99 per cent.

Throughout the country the elections were marked by good organization, and great enthusiasm on the part of the voters. They proved to be a fresh striking indication of the indelible unity of the Communist Party and Soviet people and of the triumph of socialist democracy.

SOVIET DEMOCRACY IN ACTION

Election day illustrated the triumph of our socialist democracy, a "Pravda" leader emphasizes. This is an operating democracy. The voters submitted many proposals to candidates concerning the way our society should advance and the pressing issues of the day. On election day we voted for the further consolidation of the unity and cohesion of Soviet society — a society of social justice and genuine people's rule — for the great and unbreakable friendship of the fraternal peoples, and for the further improvement in the living standards of every Soviet family.

One of the most urgent requests received from voters was to prevent the threat of war and preserve peace for present and coming generations. The Soviet people unanimously approve the Leninist foreign policy pursued by our Party; at the same time the requests reflect people's support for the efforts by Party and government to provide adequate security for this country and her friends and allies.

The principles of our foreign policy, as outlined in Konstantin Chernenko's speech, have provoked wide international response. The chief objective of this policy is to prevent nuclear war, he emphasized.



Konstantin Chernenko and Nikolai Tikhonov at the polling stations during the March 4 elections to the USSR Supreme Soviet. Photos by Sergei Smirnov and Sergei Kosyryov

DMITRY USTINOV IN INDIA

Delhi. The Soviet Union and India need and ought to cooperate. Relations between our nations, especially after we concluded our Treaty of Peace, Friendship and Cooperation, have been on the right track, stressed USSR Defence Minister Dmitry Ustinov, who is now in India on an official visit. Even though we have differing social systems, he emphasized, if one wants to live in peace and wants peace on earth, such cooperation is both useful and necessary.

Ustinov was received by Indian Prime Minister Indira Gandhi and Defence Minister R. Venkatesh. The talks were held in a friendly atmosphere and issues of mutual interest were discussed.

R. Venkatesh pointed out that relations between India and the Soviet Union have on all embracing nature, which is why such high-level talks are indispensable. Marshal Dmitry Ustinov's present visit, he stressed, highlights the importance which is attached to the development of our mutual friendship and cooperation.

GARY HART: OUR TASK IS TO STOP THE NUCLEAR ARMS RACE

New York. Our main aim is to stop the insane race in nuclear arms and to reverse it. This is necessary in order to secure the survival of mankind, said one of the leading Democratic contenders for the presidency, Senator Gary Hart, in an interview to ABC television network.

He levelled sharp criticism at White House policies in arms control. "I do not agree with many trends in these policies, and I am disinclined to believe what the administration says in election year," he noted. Mr Hart said that there can be no trusting Reagan's statements about a more flexible approach to disarmament problems, or about his alleged readiness for dialogue with the Soviet Union.

FACTS and EVENTS

Owing to the Israeli aggression and US occupation, tension continues in Beirut. Artillery exchanges between Lebanese warlike factions along the line separating the West and East parts of the city have led many people killed and injured. The shells have struck at densely populated areas in West Beirut and at the residence of the country's president, causing fires in several areas.

In the photo: black smoke overhangs Beirut.

Photo AP-TASS

Proposals by Warsaw Treaty states

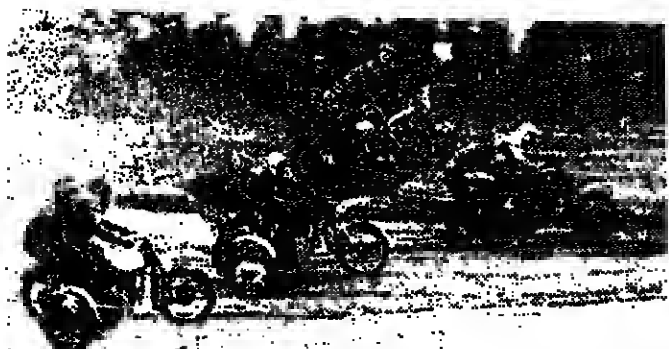
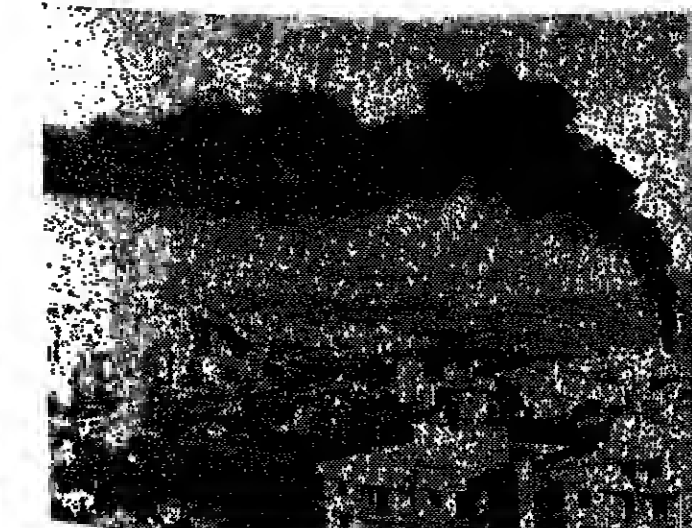
The Warsaw Treaty member-states have proposed to NATO member-states that preparatory consultations be held to be attended by all countries making part of the two alliances to reach agreement on the start of talks on mutual non-increase in military spending and its subsequent reduction.

In addition to the proposals contained in the Prague Declaration and the Moscow Statement the Warsaw Treaty member-states suggest the following possible moves as a way of solving the military spending reduction issue:

— the implementation, on the basis of mutual example, of

a small symbolic one-time reduction in the military budgets of the Warsaw Treaty and NATO member-states (each state to independently decide on the size of the reduction), with the subsequent freezing of these budgets for a period of roughly three years; this proposal being intended to facilitate the transition to more radical reductions in military budgets through follow-up talks;

— jump reductions, as a first step, in the military budgets of Warsaw Treaty and NATO member-states possessing nuclear weapons by a previously agreed joint total; the concrete size of reductions for



Motor racing is very popular in the Soviet Baltic Republics of Latvia, Lithuania and Estonia. More than a hundred contestants have been attracted by "The Big Prize of Riga" which has been won by athletes from the Altanik club.

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"MN Information" comes out on Tuesdays and Saturdays and offers in brief the latest information on events in the USSR and in the world reported by TASS and foreign news agencies. Nothing short of the material carried in the editions of both

"Moscow News" and "MN Information" gives you a full idea of life in the Soviet Union for the week.

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HOME NEWS

AQUEDUCT ACROSS ARID STEPPES

Successful tests have been carried out on a 203 kilometre-long aqueduct which stretches from the town of Novy Uzen in Kazakhstan to the Central Asian republic of the settlement of Beldau on the shore of the Caspian Sea in Turkmenia. Several thousand cubic metres of water will flow through the waterway every 24 hours. At present fresh water for the settlement must be delivered in tankers. The aqueduct was built in difficult conditions. Its route across the waterless Caspian steppes, salt-pans and plateaus.

The Khazarstap Region is the most arid zone in Turkmenia. The new aqueduct will permit the speeding up of economic development in the area.

PORT ON VENTA RIVER

Construction has begun of a new fishing port on the banks of the Venta River in Latvia to serve the needs of Leningrad fishermen.

The following facilities will be erected several kilometres from the estuary, where the waves of the Baltic and the high winds are an impediment to fishing: a cannery for taking herring, salmon, repair shops, etc. The first section of the port is to come into service in 1980.

In the wintertime, when the Gulf of Finland is covered with ice, dozens of Leningrad fishermen go over to the ice-free Ventspils port. Three major fishing co-operatives in the Ventspils Region, having pooled their resources, decided to create a large base with a port. Earlier they leased jetties from various organizations.

WHO FUNDS THE PEACE FUND?



In this photograph, you see a group of artists from Moscow who are members of the youth association of the USSR Union of Artists. They are sponsors and participants of art exhibitions. The money from the sales of exhibits is sent to the Peace Fund. Two such exhibitions have been held in the exhibition hall in Kuznetsky Street, and a third one is being prepared.

The Soviet Peace Fund was set up on the initiative of the people. In the hard post-war years, the Soviet Peace Committee received modest savings with a precise mandate to use them to promote the cause of peace. This money came from workers, collective farmers, scientists, and art workers. Very often it was sent by former soldiers and by mothers who had lost children in the war. The Peace Fund was established in 1961. One of the Fund's founders, the writer Konstantin Simonov said that all sorrow belongs to the Soviet people. The Fund's help to the children of Vietnam was a living reminder of the suffering at our own children in the war years, sad, like any manifestations of humanism.

this help is inseparable from the fight for peace.

Donations to the Peace Fund include proceeds from concerts, poetry readings, exhibitions, and plays. The contributions to the Fund include thousands of war veterans who send in a few roubles, which they might well badly need themselves, all in the cause of peace. The money for the Fund is also sent by individuals and by major collectives of employees. Thus, workers from the construction trust in Volgograd, a city which was almost completely destroyed during the Great Patriotic War of 1941-1945, recently sent 23 thousand roubles.

The money collected by the Fund is used to help victims of aggression, genocide and natural disasters, like the Palestinian refugees, or the families of African freedom-fighters. Besides, it finances meetings between peace champions in this country and sponsors the studies of the problems involved in the preservation of peace as well as the publication of peace literature.

PIPES FOR NORTHERN PIPELINES

The Khantyng piping works in the Ukraine is increasing the construction of oil and gas pipelines in the Soviet Union.

Specialists at the Ponomarev Electric Welding Institute in the helped phase in new equipment and methods like, say, gas cutting which ensure the high quality of the welded joints. For the local designers equipped the welding mills with devices for automatic control of the steel strip joints and heat them with burning devices.

ECONOMICAL CANALS

Workers at the Nizhne-Volga collective farm in Khabarovsk, Central Asian republic, have expanded by a thousand hectares the area of irrigated land without additional cost of irrigation. The water used for that was provided by a newly reconstructed machine.

The irrigators straightened the canal, laid it with reinforced concrete and lowered the water level and outlet holes. Soon the canal will be watering the crops.

In rationally using water resources, Khabarovsk has already covered with canals nearly 5,000 kilometres. This use of various water-saving devices and water-lifting facilities helped increase the yield of water in the area of water led to the fields.

to ten kilometres apart. The prospecting area has been considerably increased.

The Dnieper-Bug river is called the gem of Turkmenia. The exploration of the new reservoirs continues, while local fish is already being delivered to the central areas of the country. The exploration of the fish will help to solve, by the end of the five-year plan period, the task set by the authorities for USSR economic and social development — to raise the fish production in Turkmenia to 81-83 thousand million cubic metres a year.

The hypothesis of the possible presence of oil in Turkmenia has been confirmed. Two wells bored under the gas-bearing floor produced an influx of oil with a daily yield of 80-100 tonnes. The exploration of the oil "layer" continues.

MODEL OF THE FAR EASTERN CLIMATE OF THE FUTURE

The newspaper VOZDUSHNY TRANSPORT reports that the World Meteorological Organization (WMO) and the International Council of Scientific Unions (ICSU) among whose most active members are Soviet scientists, have devised the Global Atmosphere Research Programme (GARP).

The national climatic programme for the Soviet Union which is closely coordinated with GARP requires efforts to devise a model to forecast the climate in the Far East later this century and early in the next. The rapid development of production in the area of this country requires reliable forecasts of the climate.

The climatic cycle of the Far East is dominated by monsoons, which are already seasonal winds whose direction is abruptly reversed twice a year. Noticeable influence on the region is exerted by the so-called Siberian cyclones. One other, the Maritime Territory is crossed by big and small cyclones and typhoons which originate in the equatorial areas. From this it follows that knowing trends in climatic changes, dependent on the atmosphere, considerable savings would result when applied in economic planning.

The newspaper concludes that in a few years' time, specialists will have devised the first probabilistic model of the climate of the Far East. The basic objective of this model is the preservation of a climate favourable for human life and habitation.

Since Yuri Gagarin's flight another 136 people from 13 countries have been in space, the newspaper remarks. Flight length has increased from one hundred and eighty minutes to seven months. Over the last ten years, this country alone has launched six biological satellites with "passengers" on board representing very diverse species of fauna ranging from monocellular cultures to oaks. The considerable experience thus gained has allowed Soviet scientists to implement a programme of medical support for long-term space expeditions.

However, further progress requires that more sophisticated research be carried out, and, what is more, in space, rather than on Earth.

Only a specialist can perform such experiments in space, and evaluate and analyse the information thus received.

Modern research makes possible very detailed monitoring of the state of health of cosmonauts, as well as precise forecasts of changes in their bodies caused by the unfavourable influence of space. However, as time goes on, space exploration is becoming more and more complex. In order to assess human reserves and possibilities, it becomes necessary to place the cosmonauts under additional load. To do this in orbit without the presence of a doctor would be too much of a risk.

At present, the psychological and emotional state of crews is analysed by listening carefully to the information of their voices during communication sessions. It is quite clear that this can best be done by a doctor on board who keeps his colleagues under constant observation.

GAS SPRING OF KARAKUM

4,000 million cu m of gas has been led into the trunk gas pipeline Central Asia—Central Asia, Dnieper-Bug river in Turkmenia, Central Asia, IZVESTIA reports.

For its opening and accelerated exploration work a large group of oilmen were awarded the 1983 USSR State Prize for science and technology.

The geologists had to overcome many mysteries and difficulties on the way to the underground riches, the paper notes. Over seven years drilling operations involved a 3,500 sq km area. Used for the first time there was the advanced drilling method using an increased drilling "speed". While earlier drills stood three to four kilometres apart now they stand eight

FROM THE SOVIET PRESS

RIGHT TO HOUSING GUARANTEED

The image given out by the modern Soviet city is one of new residential areas. Over 110 million square metres of housing, or 2 million new apartments, were built last year alone, writes STROITELNAYA GAZETA.

Over the years of Soviet power, apartment blocks covering an area of 3.8 thousand million square metres have been built in this country. Despite the tremendous damage incurred during the Great Patriotic War, when 1,710 cities and towns were destroyed, this country's urban housing resources have grown over post-war years by nearly six times. During the past 8 years (1976-1981), 80.9 million Soviet citizens have improved their housing conditions.

Over the 11th five-year plan period alone (1981-1985), 110 thousand million roubles have been allocated for housing and municipal construction.

The Soviet citizen's right to housing has been inscribed in the USSR Constitution, the first time that this has been done anywhere in the world, notes the newspaper. It was further reaffirmed in the basic housing law of the USSR adopted at the 15th session of the Supreme Soviet of the USSR of the tenth convocation. The law provides legal confirmation for the first time of the regulations governing the right to receive accommodation and its perpetual use in houses belonging to the state, to collective bodies or to housing co-operatives. The law also stipulates that the distribution of new housing will now be carried out, according to the principle of each family getting a separate apartment, 80 per cent of urban dwellers already live in such apartments.

Budget research studies show that three per cent of the Soviet factory and office worker's family budget goes on rent and rates. Two-thirds of the maintenance costs of housing resources are shouldered by the state.

DOCTORS IN OUTER SPACE

One of the three cosmonauts on board the Soyuz-7 space complex, Oleg Aikov, is a doctor of medicine. He is the first doctor to go up in space after Boris Yegorov's flight in 1964. The SOTSIALISTICHESKAYA INDUSTRIYA newspaper discusses why the information received through telemetric channels is insufficient for the purposes of medical research and describes the functions of a doctor in space.

HOME NEWS

Places to visit



The entrance to the museum-flat of Fyodor Dostoyevsky.

The house where Dostoyevsky was born

Any associations between Moscow and Dostoyevsky may at first seem to be a mere coincidence as the life and work of the great writer is inseparable from St Petersburg. Yet, Moscow is the city of his childhood and adolescence. It was in a flat in Borzhdomskaya Street that the family of Mikhail Dostoyevsky, a doctor from the Mariinsky hospital, lived for a time. Seven of the doctor's children were born here, one of them destined to become immortal.

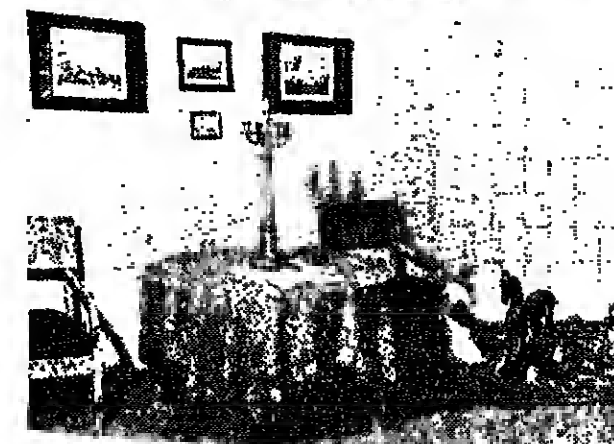
A century later, a plaque on the door announces that the house has become the "Museum-Flat of F. M. Dostoyevsky".

The museum staff have restored the appearance of the house from architect's drawings from those days and from "Recollections" written by Dostoyevsky's younger brother. We can look into the nursery where everything tallies with his memory — the sofa on which the elder brother Mikhail and Fyodor slept, the colourful tiled oven, and a small table.

Having determined to establish what influenced the formation of the writer's personality, the staff members of the museum looked for things which were precious to Fyodor during his childhood, and which were part of his life. These items are now part of a new display.

There is a candle burning at the end of the hospital corridor down which 16-year-old Fyodor Dostoyevsky marched to 1837 before leaving for St Petersburg. It throws light on a clean sheet of paper bearing the writer's signature.

Objects of everyday Russian life, and the atmosphere of a Russian house like this modest flat. In the evenings, the Dostoyevskys read Koranin's "The History of the Russian State". Later, the writer would make this book a constant item on his desk. They discussed the events of the Patriotic War against Napoleon early in the century, and they highly honoured the national customs and traditions.



The dining-room of the Dostoyevsky.

They speak Russian in Atusparia

At present, 23 million people study Russian outside this country. It is taught at schools in 60 countries and at universities in 80. There is a growing interest in Russian in Latin American countries, such as Peru.

Atusparia is the name of a rebel Indian who became the national hero of the Andean Indians. Today, his name has been given to the first school in Peru where Russian is one of the subjects taught.

The history of Atusparia is of interest. In Peru, a foreign language is a compulsory school subject. As a rule, this foreign language is English. At this school, however, a decision was taken to ask for the opinion of the parents before classes began as what foreign language they would like their children to study. Eighty-two per cent of them opted for Russian.

The most probable reason for the rapid development of friendly relations between Peru and the Soviet Union. There is a growing cultural, scientific and technical exchange, and growing numbers of tourists visit each other's countries. The Peruvians want to know more about the Soviet Union, its past, its present, its nature and people. Over the past ten years there has been a considerable increase in demand for Soviet magazines in Spanish. At Atusparia, they want to have several subjects taught in Russian such as mathematics, history or geography. The school's teachers have already made application to the Pushkin Institute of Russian in Moscow whose staff is offering them their support. The Peruvian teachers have been provided with lessons, sets of recordings of lessons, and other teaching aids. It is also important for the Peruvian teachers not to lose their (native) knowledge of Russian. With this in mind they will come to the Soviet Union in a very short time. On the part, Atusparia is to be visited by a specialist in methods of teaching Russian.

Science and technology

RECORD-SETTING CRYSTAL

The air temperature in the working chamber of a new unit for the cultivation of artificial diamonds — lamellae — is higher than that found on the surface of the Sun. It was developed and began operating in the All-Union Institute of High-Frequency Currents in Leningrad, where a crystal weighing two kilograms has been obtained.

Such big lamellae help expand the possibilities for drilling and laser equipment. The crystal obtained at the institute has the main qualities of a diamond regarding hardness and temperature of evaporation. It has the same high light refraction index. Such crystals can be made almost at will which will considerably reduce the weight of optical instruments.

USING THE SUN'S ENERGY

The advantages of a solar water heater and an electric power station have been combined in an installation created by experts from Turkmenia, a republic in Central Asia.

The electric current travels into one of the houses in a town of scientists and water heated to the point of boiling is led into the heating systems of the scientific centre.

Thus, they make full use of the Sun's energy. Whereas previously solar batteries converted into current only ultraviolet radiation, in the light-receiving devices with their blackened surfaces only infrared rays are trapped. The new equipment captures and transforms the entire spectrum of solar radiation into energy.

The first such station, rated at ten kilowatts, which will simultaneously serve as a boiler plant to produce nearly one hundred litres of hot water an hour, is to be built in one of the shepherds' settlements in the Ashkhabad District next year.

A FROST-DEFIANT WHEAT

Soviet agriculturalists have developed a substance which helps cereals and fruit trees stand up to unexpected drops in temperature. It is known that plants fear sudden heavy frosts, because the cells of, say, wheat are 80 per cent water. Sub-zero temperatures rupture the cells like bottles of water breaking in the cold. But if the temperature falls gradually, say, in autumn, the cell walls have enough time to adapt to the coming winter or to "harden up", as the experts say. All the while the plants' vital processes change, slowing their growth, with all the resources used to store up the fats, sugar and protein needed for the winter. The "excess" water intru-

into crystals in slight frost and intracellularly but between the cells.

Regrettably, the weather does not follow any fixed dates, and often enough frosts do a lot of damage to the economy. The above-mentioned substance, karolin, lifts the bill. Plants treated with it can store more than the normal amounts of fats, protein and sugar and appreciably remove the icy weight. Tests have shown that at temperatures of -18° to -20°C which are fatal to plants, all hundred untreated wheat stalks died out while another hundred treated with karolin 30 to 40 per cent survived. In other words, the substance adds to the plant's frost-resistance by 30 to 40 per cent. There have been promising results, too, in tests with fruit trees.

THERMOMETER FOR A GENERATOR

A method for measuring temperature inside working power generators was put forward by scientists working for the Yerevan Polytechnic Armenia. It is based around infrared radiation being sensed from the surfaces.

An invisible beam scans a part of the electrical machine and the results are brought from a sensor to the operator console, via telemetric link. This is the scheme used to monitor the temperature of star towers.

Unlike the method presently being used it is a remote method capable of measuring temperatures inside a working generator.

This however needs no multiple sensors, about a thousand of which are installed on the stator as previously, nor does it need two thousand wires to be checked for failure. In the new method only ten sensors are needed which are mountable on the rotor, and a non-contact electronic device is used to report the temperature to the machine operator. All the sensors are easily replaceable.

New life for an old fortress

Old fortresses erected in the Middle Ages in Estonia are taking on a new lease of life. The biggest of them, Kuressaare castle built on Saaremaa Island in the 13th-14th centuries, is being turned into a cultural centre. Following the completion of restoration and construction work, it will house a museum dedicated to the local history of the Kingsepp Region, exhibition halls for fine arts, decorative and applied art and photography, plus a chamber concert hall. Traditional folk choir festivals will be held in the courtyard.

There was a lot involved in the reconstruction work, for the restorers had to contend with damp walls, and windows in the form of narrow embrasures, in days gone by temperatures within the fortress used to be no higher than +8°-12°C. Experts from the cultural monuments design institute will remove all these shortcomings, while leaving intact the architecture as well as a device to maintain a certain degree of humidity in the halls. Lamps stylized as candles and torches will impart a medieval flavour to the interior.

Restoration is also underway in the Hermann fortress in Narva, which will house a museum, and cafe for tourists. Many other castles in Estonia are being converted into cultural centres. For instance, the ruins of Haapsalu castle and the fortress in the town of Rakvere are to be transformed into outdoor theatre and concert halls.

VIEWPOINT

30 YEARS OF VIRGIN LANDS

Konstantin RAZIN

Farmers in Central Russia had long been attracted by the crop-growing opportunities offered by the steppes lying in the Kazakhstan, eastward of the Ural and in Siberia. However, these areas remained mostly undeveloped; dry and sandy winds, early frosts and other misfortunes were characteristic of those once uninhabited places. So the people moved further on as they were unable to crack the secrets of productive farming there.

Soviet farmers much assisted by advanced technology and science, conquered the steppe expanses.

In 1954, a Plenary Meeting of the CPSU Central Committee specified the details of this venture, unprecedented to scale in Soviet history. The meeting adopted a resolution, "On the Further Increase of Grain Production and on the Development of Virgin and Fallow Lands".

It initiated a tremendous crop-growing project, which involved thousands upon thousands of people from all the Soviet republics, and big numbers of machines and mechanisms.

"The development of the Virgin Lands," reads the congratulatory message from the CPSU Central Committee, "is an outstanding labour feat of the Soviet people, a landmark in the history of mankind. The Virgin Lands was indeed a matter of national concern, and a genuine example of fraternal friendship and internationalism shown by workers in all the Union republics."

"Three decades that have elapsed since were a convincing proof that the development of Virgin Lands was attempted in the right time and was economically justified. With every passing year the Virgin Lands regions contribute an ever greater scale to the implementation of the Food Programme of the USSR."

Over the 30 years, more than 42 million hectares have been developed, including 25 million hectares in Kazakhstan. Hundreds of settlements and townships with all modern amenities have sprung up, interspersed by thousands of kilometres of roads. The Virgin Lands term the basis for more than 2,000 state farms and several hundred collective farms. The Virgin Lands have become a reliable bread basket of the country. In the past arid year, Kazakhstan alone produced more than 14.5 million tonnes of grain, or seven times as much as in 1953. A giant agroindustrial complex was built in Kazakhstan, which has become the country's biggest grain producer.

The Virgin Lands project boosted animal husbandry in Kazakhstan, too. The herd of cattle and pigs more than doubled, the procurement of meat grew by three times, milk and wool procurement went up 2.5-fold.

The farming industry there has now been experiencing several processes, including further centralization and specialization, and total mechanization, offering higher productivity. The Food Programme states that over the period till 1990 Kazakhstan is to produce 28-29 million tonnes of grain annually.

The development of the Virgin Lands has benefited other Kazakhstan industries as well. Competing with 1954, its industrial output has gone up more than threefold. It now produces five times more than the whole of pre-revolutionary Russia. Similar changes occurred in culture and science.

ENTERTAINMENT

Theatre, Cinema and TV Stars

YELENA SHKOLNIKOVA



Yelena Shkolnikova's very first role that of Countess Cepirova from "Rigoletto" at the Bolshoi in Moscow consisted of only three phrases. Even with that short appearance on stage standing before the black abyss of the auditorium she could not hear the orchestra for light, but at the same time she wished to attract everyone's attention.

This is how Shkolnikova began her career with the Bolshoi company. Over the two years that she was a probationer at the Bolshoi she sang such diverse parts as Desdemona in Mozart's "Cosi fan tutte", Oscar in "Un ballo in maschera" by Verdi, Antiochia in Glinka's "Ivan Susanin", Brigiola in Tchaikovsky's "Eugene Onegin" and other parts. These roles brought about the recognition of her talent, when in 1980 she was made a full-fledged member of the Bolshoi company.

Over the past two years, I sang two new parts — Louisa in Prokofiev's "Duetto" and Maria in Rimsky-Korsakov's "The Bride". Maria is particularly precious to me, Yelena says, like her roles who are dramatic and strong, who live unusual lives. My dream is to sing Violetta from Verdi's "La Traviata", which is my favourite.

Yelena Shkolnikova is a graduate of the Moscow Conservatory. I was lucky, I was one of the first pupils taught by Yelena Obraztsova, she continues. My teacher sought to impart to me everything she knew and could do herself. Yet, one finds it difficult to take in everything at once. However, I have learned enough from Obraztsova to last me my whole life — veritable school of singing, mastery and artistic approach. The most important thing to me is to possess zealous loyalty to music and singing.

Shkolnikova's credo in music is to look for those pieces which are little known and rarely performed. It is this thirst for something different that helped her win the Second Prize of the contest named after the Italian violinist Violin in autumn 1983 where no one won the First Prize. Every two years, singers, instrumentalists and dancers from different countries converge on the small ancient town of Vercelli not far from Milan. Shkolnikova went out as a raw newcomer, but as a seasoned soloist from the Bolshoi and the only representative of this country. It was a responsible honour, and an incredibly hard one to live up to.

The contest lasted for only three days. The rounds of this short contest went on every night. Performances began at ten in the evening and Yelena had to sing late at night. The third round was the most enjoyable and happy for me, she says. The contestants sang before an audience who could really show their appreciation and this helped my creative performance. I felt special ease and excitement. I not only sang, but also acted, addressing invisible partners and imagined theatrical scenes. I had never been such a success before. This was truly bliss.

What is one's impression on hearing Yelena Shkolnikova? Her voice is a lyrical coloratura soprano which is a lucky combination between lightness and expressiveness, movement and quivering tenderness. The parts which she sings at the Bolshoi allow her to show the different aspects of her talent for acting ranging from comic and playful to profoundly dramatic. Whatever she sings, Shkolnikova's performance is always sincere. She "holds" the audience with her charm, enthusiasm, and the love for the music she is singing.

She is to sing more new parts and do much work. In the future, she will have both successes and disappointments, both victories and defeats, and many of them for sure. The most important thing that she will have in the future is her singing, and singing, she says, is her life.

Alexandra YEGAZARYAN

Yelena Shkolnikova in Tchaikovsky's "Queen of Spades".

Photo by Georgi Soloviyov

'THE THEATRE MUST SERVE PEACE'

A delegation of US theatre people has visited Moscow and Leningrad of the invitation of the USSR Copyright Agency (VAAPI).

The delegation came to discuss the state and development of theatrical art and the role of the playwright in the modern world. Taking part in discussions from the Soviet side were representatives from the Copyright Agency, the All-Russian

Theatrical Society, and the Soviet National Centre of the International Theatre Institute, as well as Soviet theatrical writers and playwrights. They also made a tour of Soviet theatres.

The main theme of the discussions was the significance of the theatre in the modern world, and the role which it can and must play in the present situation of peace, in achieving détente, and in the consolidation and development of mutual understanding between nations.

Ballet's Viennese tour

The Kirov ballet company of Leningrad is representing Soviet art at the international music festival in Vienna.

The Leningradets will appear with Pyotr Tchaikovsky's "Sleeping Beauty" staged by the choreographer, Mariia Teplova. The main role is to be danced by Irina Kolpakova. For the first time, audiences in Vienna will see the choreographic ver-

sion of the Gogol's comic, "The Inspector-General" staged to the music of the Moscow composer, Alexander Chelidze, by Glig Vinogradov, the director of the Kirov company. The leading dances in the company and their costumes will take part in the ballet performances made in classical and modern styles.

In this photo by our photographer Andrei Kuyazev you see the Russian dance, "Lanyunya" performed by the Leningrad Music Hall. The company is now visiting Moscow where it is performing on the stage of the Central Concert Hall.

"The Happy Day" programme, which is a sort of a journey into the past and they also perform original items in the "modern" style.

One part of the programme is based on Russian folklore, the other is dedicated to modern rhythms — music, songs, and dances staged by this country's famous choreographers.



WHAT'S ON?

March 6-12

THEATRES

Kremlin Palace of Congresses (Kremlin). Performance by the Moscow Classical Ballet ensemble: 8 (mat) — Strauss, "Tricks of Terpsichore" (ballet). Bolshoi Theatre performance: 7 — Puccini, "Madama Butterfly" (opera). 8 (eve) — Minkus, "Don Quixote" (ballet). 9 — Verdi, "Il Trovatore" (opera). 10 — Triple-bill: Chopin, "Circus", Mozart and Salieri, "Mozart and Salieri", "Divertissement" (ballets).

Bolshoi Theatre (Sverdlov Sq). 8 (mat) — A concert by Bolshoi soloists: 8 (eve) — Rimsky-Korsakov, "A Tale of the Invisible City of Kitezh" (opera). 9 — Shchedrin, "The Sea Gull" (ballet). 10 — Glinka, "Ivan Susanin" (opera).

Steinlovsky and Nemirovich-Danchenko Musical Theatre (17 Pushkinskaya St.). 7 — Khrennikov, "Dorothea" (opera). 8 (mat) — Mozart, "La finta giardiniera" (opera); 8 (eve) — Minkus, "Don Quixote" (ballet). 9 — Tchaikovsky, "The Queen of Spades" (opera). 10 — Rimsky-Korsakov, "May, Night" (op-

era). 11 (mat) — Moscow, "Don Quixote" (ballet); 11 (eve) — Tchaikovsky, "Eugene Onegin" (opera). 12 — Prokofiev, "Cinderella" (ballet). Operetta Theatre (6 Pushkinskaya St.). 8 — Kaiman, "The Gypsy Princess". 9 — Zhukovskiy, "Penelope". 10 (mat) — Fellman, "An Old Comedy". 10 (eve) — Ilyin, "Lyubov". 11 (mat) — Dzhigalov, "The Gypsy Princess". 11 (eve) — Casagrande, "Kavkazskiy chio's Adventures". 12 — Kovalev, "Children in Our Backyard". 11 (eve) — Kaiman, "Eugene Onegin" (opera).

FILMS

Lyubov Orlova (Mosfilm Studios). A film story of the famous Soviet film star. Cinema: "Metropol" (17 Pushkinskaya St.). Metro Pictures (Sverdlov Sq). Well's Love, Leo (Only Film Studios). Based on V. D. Dzhigalov's novel, "The World is Working in the Night" and releases facing them.

BUSINESS

'Metallobrabotka-84'

From March 27 onwards the "Metallobrabotka 84" exhibition, a specialized international show of equipment, instruments and devices for the metalworking industry, will be seen in Moscow, the first to be held in this city.

The Soviet display features over 300 exhibits representing various trends in modern machine-building. These include numerically controlled and aggregate machine tools production lines, programmable logic and pressing equipment, industrial robots, cutting, abrasive and diamond tools and equipment for their production, instrumentation, gauging and filtering as well as other items.

Specialists will see a very wide range of machine tools: from those to be used for watch-making and instrument-making to process parts weighing many grammes to those coping with jumbo parts of up to several tonnes.

The Soviet display will feature many recently announced products including so-called automatic centres with automated tool replacement, manipulators for metalworking and laundry production, unique machine tools for total processing of parts for gas and steam turbines, cranks, crankshafts and other parts having intricate configurations.

Lidiya SHALUNOVA

Cooperation through the eye-glasses

Our relations go better all the time — thanks to our recurrent contacts, said V. D. Steffens, a spokesman for West German Optical Werke H. Rodenstock, to so MNI correspondent. Thus, the company has delivered to the USSR a set of equipment for the manufacture of optical lenses to be produced at the town of Izum. The factory has already obtained its full capacity. In 1982, the company arranged a symposium in Moscow to discuss its achievements in optotechnology.

It should be noted that Prof. Pyudunov's work, who is Corresponding Member of the USSR Academy of Sciences, has been closely followed in West Germany. The Pyudunov-Zakharov's lens is in the centre of attention of the world doctors.

Recently we signed major contract with the Soviet Union to deliver to this country an optical lens producing factory. The lenses are to be used with local frames.

Rodenstock has always been for mutually beneficial trade with the USSR and will never abandon its principles, V. D. Steffens concluded.

IN-DEPTH TRAINING FOR MACHINE-BUILDERS

Some 250 students from 46 countries have been given diplomas of their having graduated from the courses for machine-builders. The Soviet Union has run these courses for 15 years. The courses are sponsored by UNIDO. It is for the first time that the Engineering Department of the Prince Lumbwa Peoples' Friendship University opened its doors before specialists from third world countries. The machine-builders from Vietnam, Syria, Ghana, Egypt and other countries will for the next four months be attending theoretical lectures, jobs and practice at major factories in Moscow, Leningrad, Tashkent and Tbilisi.

Much attention will be paid to human engineering, planning, safety engineering as applicable to machine-building factories. They will be supervised by experienced factory engineers and scientists.

Commins first seminar

The Commins company, USA, sponsored a seminar for Soviet experts of the Moscow office of the US-Soviet Trade and Economic Council. The meeting was devoted to the manufacture of diesel engines and their operation. The firm had as previous item with the USSR, the seminar being the first attempt at approaching Soviet market.

This meeting, said Charles B. Bol, member of the Commins board of directors, represents a wonderful opportunity for us to make contacts with representatives of Soviet organizations. We hope that the exchange of opinions in the course of the seminar will be useful to both sides. If mutual interest appears, one can hope for cooperation in the future.

The firm's experts read a number of papers devoted to the use of Commins diesel engines in mining machines, bulldozers and other equipment that is employed in the arid climate. Matters were also discussed pertaining to designing methods, maintenance in field conditions and future technology.

In their efforts to make business contacts, the Commins delegation visited a number of Soviet organizations, including the Ministry of Foreign Trade of the USSR, Vneshtorgbank, Transexport, the Ministry of the Automobile Industry of the USSR, and other organizations.

Information and computer technology exchanged

"Finlomatika-84" — this is the name of the first Finnish symposium on information and computer technology sponsored by V/O Exponent at the International Trade Centre in Moscow.

Among the delegates who have arrived for this business event are both Finnish and foreign firms operating in Finland, with a stake in trade with the USSR. This was told to an MNI correspondent by Managing Director Heikki Aulvinen of the H. Aulvinen Consulting Oy, the firm organizing the exhibition.

Apart from software equipment and technology the firms have brought the programmes and services based on software. They also present specialized construction relevant to the information industry. This exhibition is one with a difference, because its participants are actively looking for possible purchases from the Soviet Union. To assist this possibility a special information service concerning software technology and equipment available in this country suitable for imports to Finland is on hand.

It can be said that there are contacts between our two countries in the area of software design. Good results have emerged from cooperation in railway traffic control. A system for business links has been set up between Helsinki and Moscow which allows information from information banks in Finland to be available to the Soviet capital, noted Heikki Aulvinen.

SOVIET DELEGATION VISITS ETHIOPIA

Addis Ababa. The Ethiopian capital has been visited by a Soviet trade and economic delegation headed by V. Lakhin, Vice-Chairman of the Soviet Union's State Planning Committee. The delegation, which arrived on a working visit, including deputy ministers of Trade, Light Industry, and the Food Industry, as well as representatives of the USSR State Planning Committee, the USSR State Council for Foreign Eco-



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Contacts and contracts

Leonid Kostandov, Vice-Chairman of the USSR Council of Ministers, chairman of the Soviet section of the USSR-West German commission for economic, scientific and technical cooperation, has received H. Friederichs, chairman of the Board of Dresdner Bank A.G., head of the West German side of the mixed group of banking and financial experts, of his request. They discussed questions relating to the work of this Soviet and West German commission.

Guri Marchuk, Vice-Chairman of the USSR Council of Ministers and Chairman of the USSR State Committee for Science and Technology, has received A. Schjorner, President of the Italian chemical concern, Montedison. They discussed the further expansion of scientific and technical cooperation in the chemical industry.

COLOURS OF UZBEKISTAN

Now on of the Central Exhibition Hall (Pyotrovskiy) in Moscow is a show of fine arts, as well as folk and decorative-applied art of Uzbekistan, a Union republic in Central Asia.

On display are documents of past history like posters dating

from the first years of Soviet power and drawings by members of workers' art studios, which were the beginnings of art education in Uzbekistan. The first teachers there were models from Moscow, Leningrad and other Russian cities.

Also on show are pictures

depicting the beauty of Uzbekistan, on painting and graphic sheets of new residential areas. The applied art section has abundant work in ceramics, wood carvings, paintings, cloth printings and hand-weaving items.

The exhibition is devoted to the 60th anniversary of Soviet Uzbekistan.



E. Aliyev, "Mukun-Ako, a Miller from Bakhmal".



M. Tokhtiyev, "A Family Portrait in the Interior".